REMARKS

I Status of the Application

Claims 33-46 and 55-75 are pending in the application.

II. The Claims are Not Anticipated

The Examiner has maintained rejection of Claims 33-37, 39-40, 42-46, 56-61 and 63-75 under 35 U.S.C. § 102(b) as alleged being anticipated by Blackburn et al. (U.S. Pat. No. 5,762,948, hereinafter "the '948 patent").

Applicants respectfully disagree.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference."[1]

Furthermore, to serve as an anticipating reference, the reference must enable that which it is asserted to anticipate. "A claimed invention cannot be anticipated by a prior art reference if the allegedly anticipatory disclosures cited as prior art are not enabled." *Amgen, Inc. v. Hoechst Marion Roussel, Inc.,* 314 F.3d 1313, 1354, 65 USPQ2d 1385, 1416 (Fed.Cir.2003). *See Bristol-Myers Squibb v. Ben Venue Laboratories, Inc.,* 246 F.3d 1368, 1374, 58 USPQ2d 1508, 1512 (Fed.Cir.2001) ("To anticipate the reference must also enable one of skill in the art to make and use the claimed invention."); *PPG Industries, Inc. v. Guardian Industries Corp.,* 75 F.3d 1558, 1566, 37 USPQ2d 1618, 1624 (Fed.Cir.1996) ("To anticipate a claim, a reference must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter."). Enablement requires that "the prior art reference must teach one of ordinary skill in the art to make or carry out the claimed invention without undue experimentation." *Minnesota Mining and Manufacturing Co. v. Chemque, Inc.,* 303 F.3d 1294, 1301, 64 USPQ2d 1270, 1278 (Fed.Cir.2002); *Enzo Biochem, Inc. v. Calgene, Inc.,* 188 F.3d 1362, 1369, 52 USPQ2d 1129, 1134 (Fed.Cir.1999). The determination of what level of experimentation is "undue," so as to render a disclosure non-enabling, is made from the viewpoint of persons experienced in the field of the invention. *See Enzo Biochem,* 188 F.3d at 1373-74.

[1] *Verdegaal Bros. v Union Oil Co. of California,* 814 F.2d 628, 631 (Fed. Cir. 1987), and MPEP 2131.

The Examiner has acknowledged that lysostaphin is not a lantibiotic.[2] Thus, Applicants respectfully submit that language discussing lanthocins in the '948 patent does not refer to nor describe lysostaphin.

Applicants respectfully submit that the '948 patent fails to teach or suggest each element of the claimed invention. Moreover, the '948 patent fails to serve as an anticipatory reference because it does not enable one of ordinary skill in the art to make and use a topical composition comprising lysostaphin and one or more lantibiotics in a method of decolonizing bacterial populations (e.g., as recited in Claim 33).

In particular, the '948 patent provides no examples of a composition comprising both lysostaphin and a lantibiotic. The '948 patent also fails to provide or describe details for decolonizing bacterial populations comprising topically applying to a bacterial infected site a composition comprising lysostaphin and one or more lantibiotics.

Applicants respectfully submit that the Examiner has failed to accept or to acknowledge the opinion of Dr. James J. Mond, M.D., Ph.D. submitted in a Declaration made 9 October 2007 under 37 C.F.R. 1.132. In particular, Dr. Mond, a person of vast experience in the field, submitted the conclusion that "There is no way to know how two complex compounds like lysostaphin and nisin would interact when combined and whether they would be functional to treat a wound or skin infection as is claimed in the present application without experimental evidence." (See 1.132 Declaration, page 2). Dr. Mond further states that "The Blackburn patent fails to provide any examples of compositions comprising a lantibiotic and lysostaphin, and also fails to provide any examples or experimental data using this type of composition in a method as provided in the present invention." (See 1.132 Declaration, page 2).

Applicants respectfully submit that the '948 simply fails to enable one skilled in the art to make and use the subject matter of the claimed invention. The '948 patent also fails to teach each and every element of the claims.

The pending claims are distinguishable over the teachings of the '948 patent because the amount of lantibiotic (nisin) used in the '948 patent (25ug/ml or 50 ug/ml) is 0.025% wt% or 0.05%, respectively. These amounts do not fall in the 0.1 to 10.0 wt% of lantibiotic claimed in the present application. Furthermore, the '948 patent does not

[2] See Office Action mailed April 10, 2007, page 5.

provide any experiments or data of any type using 500 ug/ml of nisin as alleged by the Examiner. In fact, not one amount of nisin above 50 ug/ml is tested. Moreover, the '948 patent does not teach or disclose even a single dosage of lysostaphin. This alone defeats the rejection.

Applicants respectfully submit that the Examiner has failed to cite to evidence within the '948 patent, or from any source, that would allow one of ordinary skill in the art background sufficient to practice the instant invention. The '948 patent does not place the public in possession of the claimed invention.

Accordingly, because the '948 patent does not teach or enable a method of applying to a patient a composition comprising a combination of lysostaphin and one or more lantibiotics, the '948 patent does not anticipate Claim 33 and claims dependent thereon. For example, the '948 patent does not teach or suggest a topical composition comprising 0.1 % by weight lysostaphin and 0.1 % by weight nisin (e.g., as recited in Claim 67). Similarly, the '948 patent does not teach or disclose a method of decolonizing bacteria from infected abrasions, infected skin cuts, infected surface cuts, infected burns, infected surgical incisions, or infected decubiti (e.g., as recited in Claim 55); nor wherein the concentration of lysostaphin in the composition is lower than the minimum inhibitory concentration of lysostaphin when used independently (e.g., as recited in Claim 56); nor wherein the concentration of the lantibiotic in the composition is lower than the minimum inhibitory concentration of the lantibiotic when used independently (e.g., as recited in Claim 57).

Applicants respectfully request that the Examiner withdraw the rejection under 35 U.S.C. §102(b).

III. The Claims are Not Obvious

The Examiner has maintained A) the rejection of Claims 33-37, 39-40, 42-44, 46, 55-75 under 35 U.S.C. §103(a) as allegedly being unpatentable over Daley et al. (U.S. Pat. No. 5,342,612, hereinafter "the '612 patent") in view of Blackburn et al. (U.S. Pat. No. 4,980,163, hereinafter "the '163 patent"); B) the rejection of Claims 33-40, 42-46, 55-61 and 63-75 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Blackburn et al. (U.S. Pat. No. 5,762,948 (hereinafter "the '948 patent")) in view of

Gasson et al. (U.S. Pat. No. 6,448,034 (hereinafter "the '034 patent")); and C) the rejection of Claim 41 as allegedly being unpatentable over Blackburn et al. (U.S. Pat. No. 5,762,948 (hereinafter "the '948 patent")) and Gasson et al. (U.S. Pat. No. 6,448,034 (hereinafter "the '034 patent")) further in view of Krieger et al. (U.S. Pat. No. 6,503,881 (hereinafter the '881 patent")). The Examiner makes a new rejection D) under 35 U.S.C. §103(a) of Claim 62 as allegedly being unpatentable over the '948 patent, the '034 patent, the '881 patent further in view of Anchisi et al (I1 Farmaco (2001), p.427-431 (hereinafter "Anchisi et al.").

Applicants respectfully disagree with each rejection and respectfully submit that the Examiner's allegations are not factually or legally supportable.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a prima facie case of obviousness.[3] A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art.[4] An obviousness analysis requires that the prior art both suggest the claimed subject matter **and** reveal a reasonable expectation of success to one reasonably skilled in the art.[5]

The test for *prima facie* obviousness is consistent with legal principles enunciated in *KSR Int'l Co. v. Teleflex Inc.,* 127 S. Ct. 1727 (2007). The Federal Circuit summarized the Supreme Court's holding in *KSR* that "While the *KSR* Court rejected a rigid application of the teaching, suggestion, or motivation ("TSM") test, the Court acknowledged the importance of identifying 'a ***reason*** that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does' in an obviousness determination." *Takeda Chem. Indus., Ltd. v. Alphapharma Pty., Ltd., 06-1329, slip op. (Fed. Cir. June 28, 2007)*, at 13-14 (quoting *KSR,* 127 S. Ct. at 1731) (emphasis added). Although the TSM test should not be applied in a rigid manner, it can provide helpful insight to an obviousness inquiry. *KSR,* 127 S. Ct. at 1731. The *KSR* Court upheld the secondary considerations of non-

[3] See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).
[4] In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993).
[5] In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

obviousness, noting that there is "no necessary inconsistency between the idea underlying the TSM test and the *Graham* analysis." *Id.* Additionally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See M.P.E.P. 2143.

Applicants respectfully submit that the cited references, individually or combined, do not teach or suggest each element of the claimed invention, do not suggest how to modify compositions and methods disclosed therein in order to produce the claimed invention, and do not provide a reasonable expectation of success for carrying out the claimed invention.

Specifically, the cited references do not teach or suggest methods of the claimed invention that utilize a composition comprising lysostaphin and lantibiotic (e.g., 0.10 to about 10.0 wt % of lysostaphin and/or lantibiotic). The cited references provide no indication regarding how a composition comprising lysostaphin and lantibiotic would behave upon combination of the two biologically active agents in a topical formulation (e.g., whether either lysostaphin or lantibiotic would retain antimicrobial activity (e.g., capable of killing bacteria and/or inhibiting bacterial growth) when combined and/or whether the combination of the two would provide antimicrobial activity not achievable using either lysostaphin or the lantibiotic alone).

A) The '612 and '163 Patents:

Even if Combined[6], The '612 and '163 Patents Do Not Teach All Elements of the Claims, And Do Not Enable One of Ordinary Skill in the Art to Practice the Claimed Invention

Applicants respectfully submit that the Examiner has failed to acknowledge the teachings of the '612 patent.

Applicants submit that the '612 patent describes compositions comprising lysostaphin in various aqueous surfactant vehicles (e.g., saline, PLURONIC F127, glycerol, poloxamer 407 NF, triacetin, and peanut oil) to potentially produce a lysostaphin with enhanced biological activity and methods of using the composition to

[6] Applicants believe there exists no proper motivation to combine the references.

enhance lysostaphin bacteriostatic and/or bactericidal efficacy against *S. aureus* .[7] The '612 patent only provides experimental data regarding infusion of lysostaphin (i.e., in the absence of a lantibiotic) into bovine mammary glands.

Applicants respectfully submit that the '612 patent does not provide a teaching or suggestion that a lantibiotic (such as nisin) and lysostaphin be combined in a single formulation.[8] Additionally, the '612 patent actually teaches that addition of various reagents to a composition comprising lysostaphin can inhibit its bactericidal properties. For example, the '612 patent teaches that lysostaphin in an oil base (peanut oil base) loses its bactericidal capacity.[9]

Applicants further submit that the Examiner has neglected, or in the alternative has failed to accord proper evidentiary weight to, evidence provided in the Declaration of Dr. James Mond of 9 October 2007 regarding the '612 patent's lack of any support (e.g., experimental data) for a method of decolonizing bacteria at a site of an infection comprising topically applying a composition comprising a lantibiotic and lysostaphin.[10] Specifically, Dr. Mond concluded that one of ordinary skill in the art would not find examples or experimental data within the '612 patent that would allow one to practice the presently claimed invention.[11] For example, in addition to lacking a teaching or suggestion to generate a topical composition that comprises both a lantibiotic and lysostaphin, the '612 patent fails to provide any examples of a method of treating bacterial infection with a topical formulation comprising a lantibiotic and lysostaphin.

The'163 patent fails to supplement the deficiencies of the '612 patent to teach or suggest each element of the claimed invention. In particular, the '163 patent fails to describe to one of ordinary skill in the art whether a topical formulation comprising a lantibiotic and lysostaphin could be useful in a method of decolonizing bacterial populations at a bacterially infected site.[12] Furthermore, if one of ordinary skill in the art attempted to use the '163 patent as guidance in an effort to carry out the claimed methods

[7] See U.S. Pat. No. 5,342,612, Examples 3-5and 9-10.
[8] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 3.
[9] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 4.
[10] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 3.
[11] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 4.
[12] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, pages 4-5.

of the present invention, the '163 patent would actually teach away from the present invention.[13]

Applicants respectfully submit that the Examiner has failed to properly consider and acknowledge the evidence provided in the Declaration of Dr. James Mond. Neither the '612 patent nor the '163, individually or in combination, teach or enable all of the limitations of the presently claimed invention. Applicants contend that this alone defeats the Examiner's obviousness rejection.

The '612 and '163 Patents Do Not Provide a Reasonable Expectation of Success for Carrying Out the Claimed Invention

Applicants respectfully submit that no basis has been presented that provides a reasonable expectation of success for a method of decolonizing bacterial populations comprising topically applying to a patient in need thereof at a bacterially infected site a topical composition comprising lysostaphin and one or more lantibiotics (e.g., as recited in Claim 33). Applicants respectfully submit that the Examiner has mischaracterized the references. The cited references do not teach or suggest each element of the claimed invention. The cited references, individually or in combination, further do not enable one of ordinary skill in the art to make and use the claimed invention. Moreover, because the cited references fail to teach one of ordinary skill in the art how to make and use the claimed invention, prior to the disclosure of the present invention, one of skill in the art could not have possessed a reasonable expectation of success for carrying out a method of the claimed invention (See the Declaration of Dr. James Mond of October 9, 2007).

The Examiner alleges that "One would be motivated to use a composition comprising lysostaphin, nisin, chelating agents and surfactants in a method to decolonize bacterial compositions because Daley et al teach a composition comprising lysostaphin or nisin can eliminate bacterial (Staphylococcus) infection in bovine mammary glands and Blackburn et al teach that composition comprising lysostaphin, nisin, chelating agents and surfactants enhance broad range bactericides and are bactericidal in both gram-negative and gram-postive organisms" (Office Action, pages 10-11).

[13] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 5.

Applicants respectfully disagree and respectfully submit that this allegation is not legally or factually supportable, and in addition, is off point.

Applicants respectfully submit that the Examiner appears to be alleging that it would have been obvious to perform research and/or obvious to conduct experiments to determine if a topical composition comprising lysostaphin and a lantibiotic (e.g., nisin), with or without chelating agents and/or surfactants, would be useful in a method to decolonize bacteria via topically applying the composition to a patient.

Applicants submit, for the sake of argument, that even if the references provide a generalized teaching to attempt to topically decolonize bacterial populations utilizing a topical formulation comprising lysostaphin and a lantibiotic, that this is nothing more than an invitation to experiment and does not render obvious Applicants' invention.

Obvious to try

In light of recent Supreme Court and Federal Circuit decisions, a conclusion that the presently claimed invention is prima facie obvious because it is allegedly "obvious to try" is factually and legally unsupportable.

In *KSR Int'l Co. v. Teleflex Inc.,* 127 S. Ct. 1727 (2007), the Supreme Court specifically noted that, in some circumstances, "the fact that a combination was obvious to try ***might*** show that it was obvious under §103." (emphasis added). The Supreme Court's decision specifically referred to circumstances

> "When there is ***a design need or market pressure to solve a problem*** and there are ***a finite number of identified, predictable solutions***, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. ***In that instance the fact that a combination was obvious to try might show that it was obvious under §103.***" (emphasis added).

Subsequently, and in view of the unanimous Supreme Court decision in KSR, the Federal Circuit reemphasized that

> "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." KSR,

> 127 S. Ct. at 1732. In such circumstances, 'the fact that a combination was obvious to try might show that it was obvious under § 103.' Id."[14]

However, the Federal Circuit, following the guidance of the Supreme Court, distinguished the circumstances of KSR from those before it in Takeda Chemical.

In Takeda Chemical, the appellant, Alphapharma, argued in a Declaratory Judgment action that a claimed chemical compound was an obvious modification of a previously known compound, the modification requiring the substitution of a homolog in a different ring position.[15] Specifically, and in an attempt to seize upon the Supreme Court's acknowledgment that a combination of elements that are obvious to try might support obviousness under § 103, Alphapharma argued to the Federal Circuit that the claimed compounds would have been obvious because the prior art compound fell within "the object reach of the claim," and the evidence demonstrated that using the techniques of homologation and ring-walking would have been "obvious to try."

The Federal Circuit rejected Alphapharm's arguments and held that in view of KSR, in circumstances in which the prior art disclosed a broad selection of compounds any one of which could have been selected as a lead compound for further investigation, the prior art does not provide a predictable solution…Thus, this case fails to present the type of situation contemplated by the [Supreme] Court when it stated that an invention may be deemed obvious if it was "obvious to try." The evidence showed that it was not obvious to try."[16]

Applicants herein discuss the teachings present in each of the '612 and '163 patents. In particular, Applicants have pointed out that neither the '612 patent nor the '163 patent teach or suggest a topical composition comprising lysostaphin and a lantibiotic and methods of decolonizing bacterial populations utilizing the same. Moreover, Applicants note that each reference provides an expansive array of various agents any one of which could be selected by one of ordinary skill in the art for use in further investigation to determine its activity in topical formulations and methods of using the same for decolonizing bacterial populations. For example, one could select for further investigation for decolonization of bacteria any one of the broad and diverse types

[14] See *Takeda Chemical Industries v. Alphapharm, No. 06-1329, slip op. (Fed. Cir. June 28, 2007)*, at 15.
[15] Id.
[16] Id.

of "bacteriolytic peptide such as an enzyme or bacteriostatic peptide, for example, lysostaphin, lysozyme, nisin, magainins and the like…As an alternative to the bacteriolytic enzymes, the aqueous surfactant may be formulated with antibiotics such as amoxicillin, ampicillin, cephapirin, cloxacillin, hetacillin, penicillin, etc." (See '612 patent, columne 4, lines 5-15."

Thus, an argument that the cited references render the claimed invention prima facie obvious because it might appear obvious to try (e.g., obvious to try to select any one of a vast number of different types of agents identified) is not legally supportable. The cited references do not provide a predicable solution for generating the claimed methods of the present invention among the **millions** of possible combinations of agents. The Federal Circuit has expressly identified that this type of argument falls outside the scope of the situation contemplated by the Supreme Court in KSR when the Court stated that an invention may be deemed obvious if it was "obvious to try."

Applicants respectfully submit that prior to the disclosure of the present invention, there was no way to determine whether topical bacterial populations would be eradicated, left unchanged or perhaps even expand after exposure to a topical formulation with lysostaphin and a lantibiotic. Moreover, "

> "At the time of the invention, anyone familiar with the mechanism of lysostaphin acitivity would not have anticipated that it could work with nisin. The reason is that the lytic activity of lysostaphin on the bacterial membrane is so rapid on all of the bacteria that one might not expect any bacteria to be viable and available for killing by the slower action of the pore former nisin. Since Daley noted that lysostaphin is bacteriostatic, the assumption regarding the ability of lysostaphin to act in concert with other anti-infectives would be erroneous…There is no way to predict from Daley's patent concerning treatment by infusion into bovine mammary glands that methods of using lysostaphin together with a lantibiotic to topically treat infected wounds or skin would be successful." (Declaration of Dr. James Mond, 1.132 Declaration of 9 October 2007, pages 2-3).

Thus, there would have been no reasonable expectation of success of the claimed invention by one of ordinary skill in the art.

The Examiner alleges that "Daley et al ('612) and Backburn et al ('163) are have taught the success of using lysostaphin and lantibiotics such as nisin to treat or decolonize bacterial infections. Thus, the prior art has presented a reasonable expectation of success, that one of ordinary may conclude that the combination of lysostaphin and lantibiotics

would be effective in decolonizing bacterial infection" (Office Action pages 12-13). Applicants respectfully disagree.

Applicants note that this argument is misdirected. The allegation does not address methods of decolonizing bacterial populations comprising topically applying to a patient in need thereof to a bacterially infected site a topical composition comprising lysostaphin and one or more lantibiotics. Rather, the Examiner's reasonable expectation of success argument actually speaks to the Examiner's allegation that it would have been obvious to research and/or obvious to conduct experiments to determine if a topical formulation comprising lysostaphin and one or more lantibiotics would be useful for decolonizing bacterial populations. According to the Examiner's reasoning, it would be reasonable to expect that each and every one of the broad and diverse type of enzyme or bacteriostatic peptides, antibiotics, chelating agents, and/or surfactants (e.g., bacteriolytic peptides/enzymes or bacteriostatic peptides or antibiotics) described by the '612 patent or other type of antimicrobial agent known to one of ordinary skill in the art would also be useful in combination with lysostaphin or a lantibiotic in a topical formulation of the invention. Clearly, this is not the case.

Thus, Applicants respectfully submit that the Examiner has improperly applied an "obvious to experiment" standard. The Examiner has failed to cite to one or more references that provide a clear direction or guidance rendering obvious to one of ordinary skill in the art a method for decolonizing bacterial populations comprising topically applying to a patient in need thereof to a bacterially infected site a topical composition comprising lysostaphin and one or more lantibiotics; nor wherein the topical composition comprises from about 0.10 to about 10.0 wt % of lysostaphin; nor wherein the topical composition comprises from about 0.10 to about 10.0 wt % of one or more lantibiotics selected from the group consisting of nisin, subtilin, epidermin, gallidermin, cinnamycin, duramycin, ancovenin, and Pep 5; nor wherein the topical composition comprises nisin and an agent selected from the group consisting of a surfactant, a chelating agent and carvacrol; nor wherein the pharmaceutically acceptable carrier for topical application is in the form of a spray, mist, aerosol, lotion, cream, aqueous or non-aqueous solution or liquid, oil, gel, ointment, paste, unguent, emulsion or suspension; nor wherein the pharmaceutically acceptable carrier for topical application is an oil-in-water emulsion-

based cream or lotion comprising an aqueous phase, an oil phase, and an emulsifier; nor wherein the topical composition is selected from the group consisting of a cream formulation comprising: about 0.10 to about 10% by weight of lysostaphin, about 0.10 to about 10% by weight one or more lantibiotics; about 2 to about 10% by weight of a composition comprising glycerin ester of natural vegetable fatty acids, isostearic acid and adipic acid; about 0.25 to about 3% by weight of a composition comprising PEG-6 caprylic/capric glycerides; about 2 to about 8% by weight of a composition comprising about 40% polyacrylamide, about 15% C_{13}-C_{14} Iso-paraffin, about 5% Laureth-7 and sterile water, a composition comprising acrylamide/sodium acryloyldimethyl taurate seppic copolymer, isohexadecane and polysorbate 80; 0 to about 10% by weight of a composition comprising glyceryl caprylate and/or a composition comprising caprylic/capric glycerides; and about 70 to about 90% by weight of water; nor wherein the concentration of lysostaphin in the composition is lower than the minimum inhibitory concentration of lysostaphin when used independently; nor wherein the concentration of the lantibiotic in the composition is lower than the minimum inhibitory concentration of the lantibiotic when used independently; nor wherein the method decolonizes bacterial populations residing below the dermal layer; nor wherein the emulsifier is a water-soluble polymer in an oil phase; nor wherein the emulsifier is an inverse emulsion of polyacrylamide in liquid paraffin; nor wherein the oil phase comprises a fatty acid triglyceride blend that is solid at room temperature; nor wherein the topical composition comprises 0.1 % by weight lysostaphin and 0.1 % by weight nisin.

The cited references do not provide a predicable solution for treating a patient among the millions of possible combinations.[17] The Federal Circuit has expressly identified that this type of argument falls outside the scope of the situation contemplated by the Supreme Court in KSR when the Court stated that an invention may be deemed obvious if it was "obvious to try."

B, C and D) The '948, '034 and '881 Patents and Anchisi et al.

[17] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007,made under 37 C.F.R. 1.132, pages 2-4.

Applicants respectfully disagree with the Examiner's allegation that "There is nothing on the record that teach or suggest that the combination of prior art references does not teach the claimed invention" (Office Action, pages 19 and 23).

Applicants have described the '948 patent above. Additionally, James J. Mond, M.D., Ph.D., describes the teachings of the '948 patent in the Declaration submitted herewith. The '948 patent fails to teach, suggest or enable all elements of the presently claimed invention. In particular, the '948 patent "does not provide any support or experimental data using a composition that has both lysostaphin and a lantibiotic. Also, the amount of lantibiotic (nisin) actually used and tested by Blackburn (25ug/ml or 50 ug/ml) is actually 0.025% wt% or 0.05% wt%, respectively, and does not fall into the 0.1 to 10.0 wt% of lantibiotic that is claimed in the present application. The '948 patent does not provide any experiments or data of any type using 500 ug/ml of nisin as alleged by the Examiner. In fact, not one amount of nisin above 50 ug/ml is tested. Thus, as described by Dr. James Mond, one of ordinary skill in the art, looking to the teachings of the '948 patent would fail to be equipped to practiced the claimed invention. Furthermore, '948 patent only provides examples for using wipes formulated with nisin and does not provide any examples or experimental evidence using liquid formulations (separate from a wipe) as alleged by the examiner."[18]

The '034 and '881 patents and Anchisi et al. do not supplement the deficiencies of the '948 patent. The '034 patent, the '881 patent and Anchisi et al. all fail to mention or even reference lysostaphin. Anchisi et al. also fails to reference any lantibiotic and rather is a reference from an unrelated field having nothing at all to do with the treatment and/or prevention of unwanted bacterial growth. Applicants respectfully submit that one of ordinary skill in the art would not consult any of these references in an attempt to generate the compositions and methods of the present invention.[19]

Accordingly, the cited references do not render the present invention obvious. Applicants request that the rejections are withdrawn and the claims are passed to allowance.

[18] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007, made under 37 C.F.R. 1.132, page 5.
[19] See Declaration of James J. Mond, M.D., Ph.D., of 9 October 2007,made under 37 C.F.R. 1.132, page 5.

IV. Objection of the Specification Under MPEP 608.

Applicants have attempted to amended the Specification in order to comply with MPEP 608 and 37 C.F.R. 1.57. In particular, Applicants amended the Specification to insert reference to U.S. Pat. App. Pub. No. 20050118159 published on June 2, 2005.

This correction inserts material by amendment previously incorporated by reference as WO 03/82124. No new matter has been added (37 C.F.R. 1.57(f)). Applicants respectfully request the Examiner to provide guidance regarding proper amendments of the specification.

V. Objection of Claim 33

Applicants have amended Claim 33in order to further their business interests and the prosecution of the application, without acquiescing to the Examiner's arguments and while reserving the right to prosecute the original or similar claims in the future. Specifically, Applicants have amended Claim 33 to remove informalities present therein. Applicants respectfully request that the objection be withdrawn in view of amendment to the Claim.

VI. Rejection of Claim 36 Under 35 U.S.C. § 112

Applicants have amended Claim 36 order to further their business interests and the prosecution of the application, without acquiescing to the Examiner's arguments and while reserving the right to prosecute the original or similar claims in the future. Applicants respectfully submit that amendment to Claim 36 renders the Examiner's rejection moot. Applicants respectfully request the Examiner withdraw the rejection of Claim 36.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that Applicants have addressed all grounds for rejection and Applicants' claims should be passed to allowance. Reconsideration of the application is respectfully requested. Should the Examiner

believe that a telephone interview would aid in the prosecution of this application, Applicants encourages the Examiner to call the undersigned collect at (608) 218-6900.

Respectfully submitted,

Date: August 4, 2008

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